

MEDICAL POLICY – 7.01.573

Hip Arthroplasty in Adults

Effective Date: No

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Replaces:

Nov. 1, 2024

Oct. 7, 2024

N/A

RELATED MEDICAL POLICIES:

7.01.144 Patient-Specific Instrumentation (e.g., Cutting Guides) for

Joint Arthroplasty

7.01.550 Knee Arthroplasty in Adults

7.01.592 Surgical Treatment of Femoroacetabular Impingement

Select a hyperlink below to be directed to that section.

POLICY CRITERIA | DOCUMENTATION REQUIREMENTS | CODING RELATED INFORMATION | EVIDENCE REVIEW | REFERENCES | HISTORY

Clicking this icon returns you to the hyperlinks menu above.

Introduction

Hip arthroplasty is the medical term for a total hip replacement. A surgeon removes the damaged part of the hip joint and replaces it with implants made from combinations of metal, ceramic or plastic. These implants replace the hip joint, which is where the thigh bone attaches to the hip socket. Hip replacement is designed to reduce pain and improve quality of life. People who may qualify for this surgery are those who have severe pain from "wear-and-tear" arthritis (osteoarthritis) of the hip, who are not able to perform their normal daily activities, and who have failed nonsurgical treatments. Replacement joints have a limited life. Factors such as a person's age, severity of disease, obesity, and the type of replacement used affect how long an artificial joint may last. Hip arthroplasty must be pre-approved by the health plan. This policy outlines the information needed for the health plan review.

Note:

The Introduction section is for your general knowledge and is not to be taken as policy coverage criteria. The rest of the policy uses specific words and concepts familiar to medical professionals. It is intended for providers. A provider can be a person, such as a doctor, nurse, psychologist, or dentist. A provider also can be a place where medical care is given, like a hospital, clinic, or lab. This policy informs them about when a service may be covered.

Policy Coverage Criteria

Note: This policy only applies to adults aged 19 and older

Total hip arthroplasty Total hip arthroplasty may be considered medically necessary for joint disease when ALL of the following criteria are met: There is a documented diagnosis of one of the following: Degenerative joint disease (DJD) Osteoarthritis (OA) Rheumatoid arthritis (RA) Traumatic arthritis Avascular necrosis AND Treatment is needed because of one or more of the following: Disabling pain for at least 3 months duration Functional disability which interferes with the ability to carry out activities of daily living AND Radiographic or imaging evidence of severe osteoarthritis (Tönnis grade 3) in the 12 months prior to surgery as evidenced by two or more of the following (see Related Information): Subchondral cysts
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 Subchondral sclerosis
 Periarticular osteophytes
 Joint subluxation
 Severe joint space narrowing
 Bone on bone articulation** (see Note** below)
**Note: Failure of a trial of physical measures is not required if radiographic or
imaging findings show evidence of bone-on-bone articulation.
AND
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Documentation of three months of failed non-operative conservative management as demonstrated by a trial of one or
conservative management as demonstrated by a trial of one or more of the following medications:
Nice of the state
 Non-steroidal anti-inflammatory drugs (oral or topical) Acetaminophen
 Acetamnophen Intra-articular injection of corticosteroids as appropriate



Surgery	Medical Necessity
	AND
	A trial of one or more of the following physical measures (see
	Note** below)
	 Physical therapy ≥12 weeks
	 Flexibility and muscle strengthening exercises ≥ 12 weeks
	 Reasonable restriction of activities ≥ 12 weeks
	**Note: Failure of a trial of physical measures is not required if radiographic or
	imaging findings show evidence of bone-on-bone articulation.
Total hip arthroplasty	Hip arthroplasty may be considered medically necessary for
	the following diagnoses:
	Acute hip fracture by imaging
	Avascular necrosis, femoral head with unresponsive severe pain
	Malignancy of the joint involving the bones or soft tissues of
	the pelvis or proximal femur
Danie annum tominion of	Non-union or malunion, articular fracture
Replacement/revision of	Hip arthroplasty may be considered medically necessary for a
previous hip arthroplasty	replacement/revision of a previous arthroplasty as indicated by one or more of the following:
	 Aseptic loosening of one or more prosthetic components
	confirmed by imaging
	 Bearing surface wear leading to symptomatic synovitis or local
	bone or soft tissue reaction
	Component instability
	Displaced periprosthetic fracture
	 Fracture, mechanical failure, or recall of a prosthetic component
	Periprosthetic infection
	Progressive or substantial periprosthetic bone loss
	Recurrent or irreducible dislocation
	Recurrent, disabling pain associated with clinically significant
	leg length inequality or audible noise
Total hip arthroplasty	Total hip arthroplasty is considered not medically necessary
	when any of the above indications are not met.
	Total hip arthroplasty is considered not medically necessary
	when ANY of the following are present:

Surgery	Medical Necessity
	Active infection of the hip joint or active systemic bacteremia
	Active skin infection (except for recurrent cutaneous staph
	infections) or open wound within the planned surgical site of
	the hip
	Permanent or irreversible muscle weakness in the absence of
	pain that prevents ambulation
	Rapidly progressive neurological disease except in the clinical
	situation of a concomitant displaced femoral neck fracture
	Neuropathic (Charcot) joint

Documentation Requirements

The individual's medical records submitted for review for all conditions should document that medical necessity criteria are met. The record should include the following:

- For osteoarthritis, degenerative joint disease, rheumatoid arthritis, traumatic arthritis, or avascular necrosis with ALL of the following:
 - Needs treatment because of 3 months of disabling pain and/or limited hip function interfering with activities of daily living (ADLs)

AND

 Imaging evidence of severe osteoarthritis evidenced by two or more of the following: subchondral cysts, subchondral sclerosis, periarticular osteophytes, joint subluxation, bone on bone articulation, or severe joint space narrowing. Radiographs or imaging must be done in the 12 months prior to planned surgery

AND

- o History of unsuccessful three-month trial of failed non-operative conservative management of one or more of the following medications: non-steroidal anti-inflammatory drugs (oral or topical), acetaminophen, or intra-articular injection of corticosteroids as appropriate, and a trial of one or more of the following physical measures: physical therapy for ≥12 weeks, or flexibility and muscle strengthening exercises for ≥ 12 weeks, or reasonable restriction of activities for at least 12 weeks.
- For replacement/revision of previous arthroplasty with evidence of one of the following:
 - Aseptic loosening of one or more prosthetic components confirmed by imaging
 - Bearing surface wear leading to symptomatic synovitis or local bone or soft tissue reaction
 - Component instability
 - Displaced periprosthetic fracture
 - o Fracture, mechanical failure, or recall of a prosthetic component
 - Periprosthetic infection



Documentation Requirements

- o Progressive or substantial periprosthetic bone loss
- o Recurrent or irreducible dislocation
- Recurrent, disabling pain associated with clinically significant leg length inequality or audible noise
- For other conditions, detailed clinical documentation supporting the diagnosis of one of the following:
 - Acute hip fracture by imaging
 - o Avascular necrosis, femoral head with unresponsive severe pain
 - o Malignancy of the joint involving the bones or soft tissues of the pelvis or proximal femur
 - o Non-union or malunion, articular fracture

Coding

Code	Description
СРТ	
27130	Arthroplasty, acetabular and proximal femoral prosthetic replacement (total hip arthroplasty), with or without autograft or allograft
27132	Conversion of previous hip surgery to total hip arthroplasty, with or without autograft or allograft
27134	Revision of total hip arthroplasty; both components, with or without autograft or allograft
27137	Revision of total hip arthroplasty; acetabular component only, with or without autograft or allograft
27138	Revision of total hip arthroplasty; femoral component only, with or without allograft

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Related Information

The Tönnis Classification System is commonly used to describe the radiographic presence of osteoarthritis in the hips with grading as follows:



- Grade 0: No signs of osteoarthritis
- Grade 1: Sclerosis of the joint with slight joint space narrowing and osteophyte formation, and no or slight loss of femoral head sphericity
- Grade 2: Small cysts in the femoral head or acetabulum with moderate joint space narrowing and moderate loss of femoral head sphericity
- Grade 3: Large cysts in the femoral head or acetabulum, severe joint space narrowing or obliteration of the joint space, and severe deformity and loss of sphericity of the femoral head

Evidence Review

Description

The hip joint is a large, weight bearing joint that consists of two main components: a ball (femoral head) and socket (acetabulum). The bone surfaces are covered with articular cartilage and the hip joint is surrounded by a thin synovial membrane that produces synovial fluid, both of which help cushion and lubricate the joint to eliminate friction and aid in hip movement. A total hip arthroplasty (aka total hip replacement, THA, THR) involves removing diseased bone and cartilage and replacing it with a prosthetic implant.¹

Background

Total hip arthroplasty (aka total hip replacement, THA, THR) is one of the most common orthopedic surgeries currently performed. The surgical procedure involves removing damaged bone and cartilage of the hip joint and replacing it with a prosthetic implant. The hip joint consists of two main components: a ball (femoral head) which is the upper end of the femur (thighbone) and socket (acetabulum) which is part of the large pelvis bone. ¹

Total hip replacement surgery is most often performed due to severe pain caused by osteoarthritis (degenerative arthritis) of the hip joint that persists despite conservative treatment with non-steroidal anti-inflammatory medications, activity modification, or physical therapy. Pain from a damaged joint also limits a person's ability to carry out their everyday activities of living such as walking, bending, climbing stairs, bathing, and cooking. Other conditions that cause hip



pain and loss of function that may result in the need of a total hip arthroplasty include rheumatoid arthritis, posttraumatic arthritis, avascular necrosis, and malignant tumors of the affected bones. The goal of a total hip arthroplasty is to provide pain relief and restore functional mobility and range of motion.¹

Implant Components

The prosthetic implant components are of various designs and materials such as ceramic, metal, or plastic (polyethylene) and consist of a femoral component (a femoral stem and head piece), an acetabular component (a shell and liner), and a bearing surface. Having modular, separate components enable a surgeon the ability to adjust leg length and to select a component material that best suits the anatomic variations of any given individual. These components are either cemented into place or "press-fit" (non-cemented) into the bone to allow one's own bone to grow onto the components.²

There are advantages and disadvantages to the material type of the implant components and whether to use cement for fixation. Over time, the wear of the polyethylene components produce debris, which may lead to loosening. Ceramic implants tend to be more brittle and may break. A ceramic-on-ceramic bearing surface has been known to cause an audible squeaking noise³. Metal-on-metal bearing surfaces use has produced local tissue reactions and have resulted in higher revision rates. Cemented stems tend to have increased longevity over noncemented; they are also less expensive, but they require skilled surgical technique for correct placement. Cemented acetabular components have been shown to have a higher loosening rate than uncemented implants. Cemented femoral components are generally used in older individuals with poor bone quality and non-cemented components are used in younger individuals.⁴⁻⁷ The most widely used combination is a ceramic femoral head with an acetabular liner made of highly crosslinked polyethylene which has shown superior wear and longevity³. Data from national registries support that most hip replacements last approximately 20 to 25 years.⁸

Potential Complications of Surgery

The complication rate following hip replacement surgery is low. Complications discussed here are specific to hip arthroplasty versus complications that may be commonly seen following any other major surgery.

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- Aseptic loosening is a loss of fixation between an implant and bone. Cement fatigue or fracture may be a cause, but most often the cause is wearing of the prosthetic components.
 It is usually associated with pain. This condition requires revision surgery.⁹
- Dislocation occurs when the ball comes out of the socket. It is not a common occurrence, but when it does occur it is usually in the first few months after surgery. Treatment is with a closed reduction under sedation or anesthesia. If a closed reduction is not successful, then an open surgical reduction is required.¹⁰⁻¹¹
- Fracture-Intraoperative fractures may occur during femoral stem insertion and may require revision of components or placement of screws or plates. Risk of intraoperative fractures is increased in women, persons with inflammatory arthropathies, and with the use of noncemented fixation. A periprosthetic fracture is a broken bone near an implant. If the break is unstable and the stem is well fixed, internal fixation surgery is required. If the stem is loose, revision arthroplasty is recommended. An implant fracture, which is uncommon due to improvements in current implants, may occur secondary to years of repetitive loading as a result of high individual activity level, poor implant fixation and stability, or the increased weight of an individual.¹²
- Leg length discrepancy may result during a total hip arthroplasty. Surgeons generally attempt to equalize leg lengths at the time of surgery. However, slight lengthening or shortening of a lower extremity may be required to attain greater hip stability and lessen the likelihood of hip dislocation. If this occurs, a shoe lift may be needed postoperatively.¹³
- Metal-on-metal wear debris has been associated with early implant failure, adverse local tissue reactions, and metal hypersensitivity reactions. An adverse local tissue reaction has been the most common complication. There is also the potential for systemic metal toxicity. In symptomatic individuals, measurement of cobalt and chromium ions is recommended when this occurs. Symptoms, both local and systemic, typically improve with revision surgery. Concerns over these potential complications has led to the decreased use of metal-containing implants.¹⁴⁻²¹
- Osteolysis and wear results from progressive destruction of the periprosthetic bony tissue. It is thought to be a response to production of particulate debris. A common source of this debris is polyethylene from the articulation between the femoral head and the acetabular liner. Osteolysis is typically not associated with any symptoms unless it progresses to loosening of the prosthesis. The development of highly crosslinked polyethylene components with improved resistance to wear has been one approach in preventing wear and subsequent osteolysis. Surgical treatment is required if the individual is symptomatic or if a component loosens.²²⁻²⁵



 Thromboembolism (blood clot) is one of the most common complications of hip replacement surgery and presents the highest risk of perioperative mortality following surgery. Prevention with some type of anticoagulant (blood thinning) agent and early mobilization are key in minimizing the postoperative risk of thromboembolism.¹²

Practice Guidelines and Position Statements

Guidelines or position statements will be considered for inclusion if they were issued by, or jointly by, a US professional society, an international society with US representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

American Academy of Orthopaedic Surgeons

The American Academy of Orthopaedic Surgeons (AAOS) updated new clinical practice guideline on the treatment of osteoarthritis of the hip (2017)³⁴ strongly supports the use of presurgical treatments to ease pain and mobility, including intraarticular corticosteroid injections, physical therapy, and non-narcotic medications. The Academy does not support the use of hyaluronic acid or glucosamine sulfate to minimize osteoarthritis symptoms due to a lack of evidence supporting the efficacy of these treatments.

National Institute for Health Care Excellence (NICE)

In 2022, NICE updated its guidance on the management of osteoarthritis for those over 16 years of age. The guidance does not recommend intra-articular hyaluronan injections, nor does the guidance recommend offering glucosamine or strong opioids for the management of osteoarthritis.³⁵ The guidance stated intra-articular corticosteroid injections should be considered for short-term relief (2-10 weeks) when other pharmacological treatments are ineffective or unsuitable.

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The Osteoarthritis Research Society International (OARSI)

The Osteoarthritis Research Society International (OARSI) in 2007³⁶ updated its recommendations for the management of hip and knee osteoarthritis (OA). The Society recommended individuals with hip and knee OA be educated about the importance of lifestyle changes, exercise, pacing of activities, weight reduction and other measures to unload the damaged joint(s).

Individuals with symptomatic hip and knee OA may benefit from referral to a physical therapist for evaluation and instruction in appropriate exercises to reduce pain and improve functional capacity, which may result in the use of assistive devices such as canes and walkers, as appropriate.

Intra-articular injections with corticosteroids can be used in the treatment of hip or knee OA, particularly when individuals have moderate to severe pain not responding to oral analgesics/anti-inflammatory agents.

Medicare National Coverage

There is no national coverage determination.

Regulatory Status

Hip replacement surgery is a procedure and therefore is not regulated by the FDA. However, devices and instruments used during the surgery require FDA approval. Several devices have received FDA approval. Product codes for these devices are: MEH, JDI, JDG, LWJ, LPH, LZO, KWY, KWA.

A final order was published in 2016 by the FDA requiring premarket approvals of all metal-on-metal total hip implants effective in May 2016. Since then, all manufacturers of metal-on metal (MoM) total hip implants were required to stop marketing their devices and submit premarket approvals that must be approved before the devices can be marketed. To date, there are no FDA-approved metal-on-metal total hip replacement devices marketed for use in the US There are two FDA approved metal-on-metal hip resurfacing devices available.³⁷



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History

Date	Comments
09/01/19	New policy, approved August 13, 2019, effective January 1, 2020. Add to Surgery section. Hip arthroplasty may be considered medically necessary when criteria are met.
03/01/20	Interim Review, approved February 20, 2020. Added note that indicates non-surgical medical management is not required if radiographic or imaging findings show evidence of bone on bone articulation.
04/01/20	Delete policy, approved March 10, 2020. This policy will be deleted effective July 2, 2020, and replaced with InterQual criteria for dates of service on or after July 2, 2020.
07/02/20	Delete policy.
11/01/20	Policy reinstated effective February 5, 2021, approved October 13, 2020. References updated. Policy statements unchanged.
04/01/21	Annual Review, approved March 2, 2021. Policy reviewed. References updated. Policy statements unchanged.
03/01/22	Annual Review, approved February 21, 2022. Policy reviewed. References added. Policy statements unchanged. Note to this policy updated to say the policy only applies to adults 19 years of age and older.
08/01/22	Interim Review, approved July 11, 2022. Minor edit and formatting for greater clarity only; policy statements unchanged.
04/01/23	Annual Review, approved March 20, 2023. Policy reviewed, Added types of joint disease to be reviewed. Minor editing and reformatting for greater clarity. References



Date	Comments
	updated. No references added. Policy statements unchanged. Changed the wording from "patient" to "individual" throughout the policy for standardization.
01/01/24	Interim Review, approved December 12, 2023. Minor corrections made to policy to align with policy criteria of 7.01.550 Knee Arthroplasty in Adults. Policy intent unchanged.
11/01/24	Annual Review, approved October 7, 2024. Policy reviewed; no references added. References updated. Policy statements unchanged. Minor formatting changes for clarity only.

Disclaimer: This medical policy is a guide in evaluating the medical necessity of a particular service or treatment. The Company adopts policies after careful review of published peer-reviewed scientific literature, national guidelines and local standards of practice. Since medical technology is constantly changing, the Company reserves the right to review and update policies as appropriate. Member contracts differ in their benefits. Always consult the member benefit booklet or contact a member service representative to determine coverage for a specific medical service or supply. CPT codes, descriptions and materials are copyrighted by the American Medical Association (AMA). ©2024 Premera All Rights Reserved.

Scope: Medical policies are systematically developed guidelines that serve as a resource for Company staff when determining coverage for specific medical procedures, drugs or devices. Coverage for medical services is subject to the limits and conditions of the member benefit plan. Members and their providers should consult the member benefit booklet or contact a customer service representative to determine whether there are any benefit limitations applicable to this service or supply. This medical policy does not apply to Medicare Advantage.

